BRAIN RESEARCH

VOL. 439 NO. 1/2 CONTENTS 26 JANUARY 1988

Research Reports

Intracranial dialysis measurement of oxytocin, monoamine and uric acid release from the olfactory bulb and substantia nigra of sheep during parturition, suckling, separation from lambs and eating (BRE 13193)
K.M. Kendrick, E.B. Keverne, C. Chapman and B.A. Baldwin (U.K.) 1

Enhancement of neurotrophic activity in cholinergic cells by hippocampal extract prepared from colchicine-lesioned rats (BRE 13194)
Y. Nakagawa and T. Ishihara (Japan) 11

Central respiratory oscillator: phase–response analysis (BRE 13269)
S. Kitano and A. Komatsu (Japan) 19

Effects of behaviorally rewarding hypothalamic electrical stimulation on intracellularly recorded neuronal activity in the motor cortex of awake monkeys (BRE 13196)
S. Aou, Y. Oomura, C.D. Woody and H. Nishino (Japan, U.S.A.) 31

Dopaminergic neurons of the substantia nigra modulate preproenkephalin A gene expression in rat striatal neurons (BRE 13197)
E. Normand, T. Popovici, B. Onteniente, D. Fellmann, D. Piatier-Tonneau, C. Auffray and B. Bloch (France) 39

Two types of brain calmodulin-dependent protein kinase II: morphological, biochemical and immunochemical properties (BRE 13198)
H. LeVine, III and N.E. Sahyoun (U.S.A.) 47

Long-lasting neuronal activity in rat dorsal horn evoked by impulses in cutaneous C fibres during noxious mechanical stimulation (BRE 13200)
J. Schouenborg and A. Dickenson (Sweden) 56

Reciprocal modulation of calcium current by serotonin and dopamine in the identified *Aplysia* neuron R15 (BRE 13201)
D.P. Lotshaw and I.B. Levitan (U.S.A.) 64

Putative serotonergic bipolar and amacrine cells in the chicken retina (BRE 13199)
T.J. Millar, C. Winder, I. Ishimoto and I.G. Morgan (Australia) 77

Alteration in the regulation of neuronal muscarinic acetylcholine receptor number induced by chronic lithium in neuroblastoma cells (BRE 13202)
W.C. Liles and N.M. Nathanson (U.S.A.) 88

Integrated defence reaction elicited by excitatory amino acid microinjection in the midbrain periaqueductal grey region of the unrestrained cat (BRE 13203)
R. Bandler and P. Carrive (Australia) 95

Biochemical and histological modifications of the rat retina induced by the cholinergic neurotoxin AF64A (BRE 13204)
C. Estrada, D. Triguero, R.M. Del Río and P.G. Ramos (Spain) 107

A new method for studies of the effects of locally applied drugs on peripheral nerve regeneration in vivo (BRE 13208)
M. Kanje, G. Lundborg and A. Edström (Sweden) 116

Acetylcholine dramatically increases prostanoid synthesis in piglet parietal cortex (BRE 13209)
D.W. Busija, L.C. Wagerle, M. Pourcyrous and C.W. Leffler (U.S.A.) 122

Light and electron microscopic study of tyrosine hydroxylase-immunoreactive neurons within the developing rat arcuate nucleus (BRE 13205)
M. Piotte, A. Beaudet and J.R. Brawer (Canada) 127

Methylmercury-induced movement and postural disorders in developing rat: regional analysis of brain catecholamines and indoleamines (BRE 13211)
J.R. O'Kusky, B.E. Boyes and E.G. McGeer (Canada) 138

Calcitonin gene-related peptide-like immunoreactivity in neuronal elements of the cat cerebellum (BRE 13206)
T. Sugimoto, K. Itoh and N. Mizuno (Japan) 147

γ-Aminobutyric acid (GABA) immunoreactivity in mouse and rat first somatosensory (SI) cortex: description and comparison (BRE 13207)
J. Chmielowska, M.G. Stewart and R.C. Bourne (U.K., Poland) 155

(contents continued on pp. 409–410)

Cited in Biological Abstracts (BIOSIS) — Chem. Abstracts — Index Medicus — Current Contents (Life Sci.) — Excerpta Medica (EMBASE) — Psychological Abstracts (PsycINFO) — PASCAL M

(contents continued from backcover)

Colony-forming ectopic granule cells in the cerebellar primary fissure of normal adult rats: a morphologic and morphometric study (BRE 13210)
M.T. Berciano and M. Lafarga (Spain) 169
Comparison of cerebellar intention tremor under isotonic and isometric conditions (BRE 13212)
D. Flament and J. Hore (Canada) 179
Increased expression of α_1-adrenergic receptors in the hypothalamus of spontaneously hypertensive rats (BRE 13213)
D.F. Bottiglieri, C.A. Morse, S.P. Baker, F.T. Crews, C. Sumners and M.K. Raizada (U.S.A.) 187
Responses of lamb nucleus of the solitary tract neurons to chemical stimulation of the epiglottis (BRE 13215)
R.D. Sweazey and R.M. Bradley (U.S.A.) 195
Protein transport between crayfish lateral giant axons (BRE 13216)
T.A. Viancour, R.A. Sheller, G.D. Bittner and K.R. Seshan (U.S.A.) 211
A critical period for long-term potentiation in the developing rat visual cortex (BRE 13214)
A.T. Perkins, IV and T.J. Teyler (U.S.A.) 222
Fine structure of NPY-containing neurons in the lateral geniculate nucleus and their terminals in the suprachiasmatic nucleus of the rat (BRE 13217)
Y. Ibata, Y. Takahashi, H. Okamura, T. Kubo and F. Kawakami (Japan) 230
The localization of $GABA_A$ receptors in mice with mutations affecting the structure and connectivity of the cerebellum (BRE 13218)
A. Rotter, C. Gorenstein and A. Frostholm (U.S.A.) 236
κ-Bungarotoxin: binding of a neuronal nicotinic receptor antagonist to chick optic lobe and skeletal muscle (BRE 13219)
K.M. Wolf, A. Ciarleglio and V.A. Chiappinelli (U.S.A.) 249
Methylprednisolone reduces the bulk flow of water across an in vitro blood–brain barrier (BRE 13220)
J.J. Olson, M.M. Poor, Jr. and D.W. Beck (U.S.A.) 259
Electrophysiological effects of cholecystokinin octapeptide on identified rat nigrostriatal dopaminergic neurons (BRE 13221)
A.S. Freeman and L.A. Chiodo (U.S.A.) 266
Reduction of dye coupling in glial cultures by microinjection of antibodies against the liver gap junction polypeptide (BRE 13222)
F.E. Dudek, V.K. Gribkoff, J.E. Olson and E.L. Hertzberg (U.S.A.) 275
Serum and fibroblast growth factor stimulate quiescent astrocytes to re-enter the cell cycle (BRE 13223)
D.A. Kniss and R.W. Burry (U.S.A.) 281
Paraventricular lesions: hormonal and cardiovascular responses to hemorrhage (BRE 13224)
D.N. Darlington, J. Shinsako and M.F. Dallman (U.S.A.) 289
Immunohistochemical localization of γ-aminobutyric acid- and aspartate-containing neurons in the rat deep cerebellar nuclei (BRE 13225)
K. Kumoi, N. Saito, T. Kuno and C. Tanaka (Japan) 302
Effects of square-wave gratings and diffuse light on metabolic activity in the rat visual system (BRE 13226)
B.J. Rooney and R.M. Cooper (Canada) 311
Somatostatin inhibition of anterior pituitary adenylate cyclase activity: different sensitivity between male and female rats (BRE 13228)
G. Schettini, T. Florio, O. Meucci, E. Landolfi, G. Lombardi and A. Marino (Italy) 322
Lesions of the AV3V region attenuate sympathetic activation but not the hypertension elicited by destruction of the nucleus tractus solitarius (BRE 13229)
J.M. Catelli and A.F. Sved (U.S.A.) 330
Ultrastructural study on meningeal regeneration and meningo–glial relationships after cerebral stab wound in the adult rat (BRE 13227)
A.L. Carbonell and J. Boya (Spain) 337

Short Communications

Changes in inner plexiform layer thickness following neonatal visual cortical ablation in cats (BRE 22690)
M.H. Rowe (U.S.A.) 345
The inhibitory effect of somatic inputs on the excitatory responses of vagal cardiomotor neurones to stimulation of the nucleus tractus solitarius in rabbits (BRE 22691)
Q. Wang, X.-Q. Guo and P. Li (People's Republic of China) 350
Neurotransmitter receptors in the avian brain. I. Dopamine receptors (BRE 22692)
M.M. Dietl and J.M. Palacios (Switzerland) 354
Neurotransmitter receptors in the avian brain. II. Muscarinic cholinergic receptors (BRE 22693)
M.M. Dietl, R. Cortés and J.M. Palacios (Switzerland) 360

(continued overleaf)

Neurotransmitter receptors in the avian brain. III. GABA-benzodiazepine receptors (BRE 22694)
M.M. Dietl, R. Cortés and J.M. Palacios (Switzerland) 366
Dextromethorphan and dextrorphan as calcium channel antagonists (BRE 22695)
C.L. Carpenter, S.S. Marks, D.L. Watson and D.A. Greenberg (U.S.A.) 372
GABAergic ganglion cells in the rabbit retina (BRE 22696)
B.C.-Y. Yu, C.B. Watt, D.M.K. Lam and K.R. Fry (U.S.A.) 376
Long-term potentiation in the dentate gyrus is induced preferentially on the positive phase of θ-rhythm (BRE 22697)
C. Pavlides, Y.J. Greenstein, M. Grudman and J. Winson (U.S.A.) 383
Reduction of activities of superoxide dismutase but not of glutathione peroxidase in rat brain regions following decapitation ischemia (BRE 22699)
P.H. Chan, L. Chu and R.A. Fishman (U.S.A.) 388
Immunocytochemical evidence for direct synaptic connections between corticotrophin-releasing factor (CRF) and gonadotrophin-releasing hormone (GnRH)-containing neurons in the preoptic area of the rat (BRE 22700)
N.J. MacLusky, F. Naftolin and C. Leranth (U.S.A.) 391
Method for stable intracellular recordings of spinal α-motoneurons during treadmill walking in awake, intact cats (BRE 22703)
L.L. Glenn, J.F. Whitney, J.S. Rewitzer, J.A. Salamone and S.A. Mariash (U.S.A.) 396
Histaminergic nerve fibers in the median eminence and hypophysis of rats demonstrated immunocytochemically with antibodies against histidine decarboxylase and histamine (BRE 22708)
N. Inagaki, A. Yamatodani, K. Shinoda, P. Panula, T. Watanabe, Y. Shiotani and H. Wada (Japan, Finland) 402

Author Index 406